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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,534

09/15/2005

Eberhard Gobel

23367

9685

535 7590 05/21/2008

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EXAMINER

YIP, WINNIE S

ART UNIT

PAPER NUMBER

3636

MAIL DATE

DELIVERY MODE

05/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,534	Applicant(s) GOBEL, EBERHARD	
	Examiner Winnie Yip	Art Unit 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/28/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to applicant's amendment filed on February 20, 2008 for a Request Continued Examination (RCE) of earlier application.

Drawings

1. The drawings filed on December 4, 2007 are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature: "respective **abutments** fixed on the ribs" and "for limiting sliding of the slides toward the respective outer rib ends" (claim 30) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. Claim 30-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 30, it is not clear what does meant by "for limiting sliding of the slides toward the respective outer ribs ends". This cited language does not consist what is defined in the

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specification and it is not clear how it works. According to the specification (see page 6, lines 24), the abutment is used "for limiting the travel of the respective slide 9 toward the shaft 2".

Therefore, as better understood, the position of the slide (9) appears to be located between the respective abutment and the outer end of the respective rib, the abutments appear to be used for limiting the slides toward the shaft or toward the inner end of the ribs. Clarification is required.

Claim Rejections - 35 USC § 103

3. Claims 30-31 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chinese Patent Application Publication No. CN 2381177 in view of US Patent No. 4,061,154 to Cox et al.

Chinese document shows and discloses an umbrella comprising: a central axis-defining shaft (20), ribs (21) pivotally connected to the shaft, an actuator (202) movable axially along the shaft, spreaders (22) pivotally mounted between the actuator and the respective ribs, and a flexible canopy (24) spanned over the ribs as claimed, wherein the ribs and spreaders being made of material generally has a spring strength such that the canopy in the open position forming a spring element acting as a damping member as an general umbrella as old and known in the art as claimed. The document further teaches the umbrella including a slide (231) shiftably mounted along each respective rib and located adjacent an outer end of the rib respectively, and respective abutments (232) mounted on the respective ribs at a spacing from the respective rib outer end for limiting sliding of the slides, and respective brace struts (23) each having an outer end pivotally mounted on the slide (231) and an inner end pivotally mounted on the respective spreader (23) between two ends of the spreader, wherein the outer end of the brace strut being

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able to move by the slider between the outer end of the rib and the abutment with respect to the effective of wind such that the brace struts being able to resist compression and tension of the ribs and to resist a complete inversion of the canopy with respect to effective of wind, and preventing broken of the ribs with respect to the force by the wind.

Although, the document does not specifically define the ribs, the spreaders, and the slides being made of plastic, B teaches, as known in the art, an umbrella having ribs, spreaders, and slides being made of plastic to provide a lightweight umbrella. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the umbrella of Chinese document having the ribs, spreaders, and slides being made of plastic as taught for

Although Raabe does not define the ribs, the spreaders and the brace struts being made of plastic and with specific diameter as claimed, Cox et al. teach an umbrella having a frame including ribs (40) and spreaders (70) being made of fiber glass reinforced plastic (see col. 3, lines 1-12) such that the umbrella has a lightweight frame with the ribs and spreaders being resiliently bend in response to be deformed rather than irreversibly deforming or breaching (see col. 5, lines 35-45). Therefore, it would have been obvious design choice for one of ordinary skill in the art at the time the invention was made to modify the umbrella of Raabe having the ribs, the spreaders and the brace struts being made of fiber glass reinforced plastic as taught by Cox et al. to provide an umbrella with a lightweight and inexpensively molded frame to take the advantages of the sufficient impact and spring strength characterizes and wear properties of the plastic such that the frame provides a damping resistance to resist the inversion of the canopy in a wind storm and to restore automatically when the wind pressure drops. All of the foregoing is

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within the skills, competence and knowledge of the person with ordinary skills in the covering art.

Regard to claim 31, the Chinese document shows the umbrella having the length of each rib between its outer end and its pivotal connection between the outer end of the spreader is capably formed to be greater than a length of the respective brace strut plus a length of the respective spreader between its pivotal connection with the rib and with the brace strut as claimed.

Regarding claims 32-33, although the Chinese document and Cox et al. do not explicitly define the rib, the spreader, and brace having specific diameters as claimed, since the applicant has not disclosed that the specific diameter of the frame of the umbrella solves any stated problem or is for any particular purpose, it would have been held to be within the general skill of a worker in the art to select the umbrella having frame elements such ribs, spreaders and braces being formed with suitable diameters to accommodate the size of the umbrella in various applications on the basis of its suitability in use as a matter of obvious design choice. And, it appears that the claimed umbrella would perform equally well being made of a plastic with specific diameter such as 2-6 mm as claimed and such modification would not otherwise affect function of the device which relies on its structure and not its particular material and diameter for its function.

Regard to claim 35, The Chinese document teaches, see Fig. 5, the slide (321) having a tube engaged around the respective rib and forms a pivot such that the slide being pivotally mounted between the rib and the spreader as claimed.

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4. Claims 30-33, and 35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 1,167,431 to Raabe in view of US Patent No. 4,061,154 to Cox et al.

Raabe shows and teaches an umbrella comprising: a central axis-defining shaft (A), an actuator (no number) movable axially along the shaft, a frame including a plurality of ribs (C) having inner ends being pivotally secured to an upper end of the shaft and outer ends being movable between closed and opened positions, a plurality of spreaders (D) each having an outer end being pivotally secured to one of the ribs by a connector (H) and an inner end being pivotally mounted on the actuator respectively, and a flexible canopy (not shown) spanned over the ribs inherently as a known umbrella in the art. Raabe further teaches the umbrella comprising a plurality of slides (slidable clamp b) each shiftable along one of the ribs adjacent the outer end of the rib, a plurality of brace struts (F) being distributed angularly and having an inner end being pivotally connected to the respective spreader (D) by a fastener (J), and having an outer end being pivotally mounted to the respective slid (b) on the rib adjacent to the outer end of the rib, and an abutment (S') mounted on the respective rib between the connector (H) and the outer end of the rib "for limiting the inward sliding movement of the slide" toward the inner end of rib (see page 2, lines 6-7) such that the outer end of the brace strut causes the rib being curved inside so as to prestress the umbrella when the canopy being opened in a direction resisting inversion of the canopy, and wherein the brace strut (F) provides a means for providing efficient means for insuring that the umbrella will not be turned inside out (turned from inside position to and an reversed out direction) in a storm.

Although Raabe does not define the ribs, the spreaders and the brace struts being made of plastic and with specific diameter as claimed, Cox et al. teach an umbrella having a frame

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including ribs (40) and spreaders (70) being made of fiber glass reinforced plastic (see col. 3, lines 1-12) such that the umbrella has a lightweight frame with the ribs and spreaders being resiliently bend in response to be deformed rather than irreversibly deforming or breaching (see col. 5, lines 35-45). Therefore, it would have been obvious design choice for one of ordinary skill in the art at the time the invention was made to modify the umbrella of Raabe having the ribs, the spreaders and the brace struts being made of fiber glass reinforced plastic as taught by Cox et al. to provide an umbrella with a lightweight and inexpensively molded frame to take the advantages of the sufficient impact and spring strength characterizes and wear properties of the plastic such that the frame provides a damping resistance to resist the inversion of the canopy in a wind storm and to restore automatically when the wind pressure drops. All of the foregoing is within the skills, competence and knowledge of the person with ordinary skills in the covering art.

Regarding claim 16, Raabe shows the length (GH) of each rib (C) between its outer end (G) and its pivotal connection (H) with the outer end of the respective spreader is substantially greater than a length (bK) of the respective brace (F) plus a length (HK) of the respective spreader (D) between its pivotal connection with the respective rib and the with the respective brace as claimed.

Regarding claim 17, Raabe shows the umbrella having the brace struts (F) distributed angularly and extending between the respective spreaders (D) and the respective ribs.

Regarding claims 19-20, although Raabe and Cox et al. do not explicitly define the rib, the spreader, and brace having specific diameters as claimed, since the applicant has not disclosed that the specific diameter of the frame of the umbrella solves any stated problem or is

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for any particular purpose, it would have been held to be within the general skill of a worker in the art to select the umbrella having frame elements such ribs, spreaders and braces being formed with suitable diameters to accommodate the size of the umbrella in various applications on the basis of its suitability in use as a matter of obvious design choice. And, it appears that the claimed umbrella would perform equally well being made of a plastic with specific diameter such as 2-6 mm as claimed and such modification would not otherwise affect function of the device which relies on its structure and not its particular material and diameter for its function.

Regarding claim 25, Raabe further teaches the slide (5) including a U-shaped section (c-a-d) and a cover (x) being enclosed to form a tube to engage around and shiftable along the respective ribs (32), a shoe (b) forming a pivot for connecting the outer end of the respective space struts (F) as claimed.

5. Claim 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 1,167,431 to Raabe in view of US Patent No. 4,061,154 to Cox et al. as applied to claim 30 above, and further in view of US Patent No. 6,715,504 to Chen.

Although Chinese document and Cox et al. do not specifically define the umbrella having every other spreader having the brace strut as claimed, Chen teaches an umbrella having every other ribs (A) and respective spreaders (3) being formed with a respective brace pivotally connected therebetween to provide different spring strengths to the frame of the umbrella. It would have been obvious to one ordinary skill in art at the time the invention was made to modify the umbrella of Chinese document as modified by Cox et al. having the frame formed with every other ribs and the respective spreaders provided with a respective brace struts

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therebetween as taught by Chen to reduce the material of the frame but with sufficient wind resistance as desired.

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chinese Patent Application Publication No. CN 2381177 in view of US Patent No. 4,061,154 to Cox et al. as applied to claim 30 above, and further in view of US Patent No. 6,715,504 to Chen for the same reasons set forth above rejection.

Response to Arguments

7. Applicant's arguments filed February 20, 2008 have been fully considered but they are not persuasive for the following reasons:

In response to applicant's argument that the reference to Raabe '431 does not have an abutment being located as claimed to achieve the effect opening of the umbrella as the claimed invention, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In this case, first, as rejected under 35 U.S.C. 112 above, applicant fails to clearly define and show where is the position of the abutment disposed along the rib such that to clearly define the position of the slide and the slide movement of the brace strut with respect to the rib and the spreader. Second, According to the specification of the application, the claimed invention having "an abutment for limiting the travel of the respective slide 9 toward the shaft 2" (see page 6). Therefore, as better understood, the abutment appears to be located between the connection between the rib and the outer end of the spreader (6) and an outer end of the rib, and

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the slide is slide there between. Raabe teaches the brace strut (F) are "pivotally secured at one end to the stretcher D (the spreader as claimed) and slidably secured at an other end to the ribs C at points between the outer end of G of the ribs and the point H" (page 1, lines 55-60), and "A suitable stop (an abutment as claimed) is preferably provide on the rib C between the slidable clamp and the point H ... for limiting the inward sliding movement of the clamp" (see page 2, liens 2-8). And, the stop consists of split rings S' and T' as similar to the split rings S and T as shown in Fig. 2). Therefore, Raabe clearly teaches the umbrella comprising an abutment (S') for limiting a slide moving toward the connection between the rib and the respective spreader with respect to the force by the wind and to prevent the canopy open inside out (in an reversible) direction. Therefore, Raabe is considered to teach the umbrella having slidable brace struts sliding along the rib to prevent the canopy turn outwardly as to solve a same problem as claimed.

The rejection appears proper and still granted.

Inquiry Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Winnie Yip whose telephone number is 571-272-6870. The examiner can normally be reached on M-F (9:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Winnie Yip/
Primary Examiner,
Art Unit 3636

wsy
May 19, 2008